

NitROE[®] Tank Overview



Groundwater

Supplemental NitROE[®] Tank Addition

Proven and Accepted Wastewater Treatment Processes Applied in an Innovative Manner for Enhanced Nitrogen Reduction





Groundwater

NitROE[®] Tank Installation Step 1. Dig Hole and Place Tank



NitROE[®] Tank Installation Step 2. Cover Tank and Add Risers

Influent

CES Clean Water

Effluent

NitROE[®] Tank Installation Step 3. Place Soil Cover & Hook-Up





NitROE® Tank Demonstration Update December 8, 2018

- Testing and developmental units operating at Massachusetts Alternative Septic System Test Center (MASSTC) since January 2017
- 11 units to be operating under Mass DEP Pilot Permits in 2018
 - 10 MV installations with and 1 Cape Cod installation
 - Goal of Total N < 10 mg/l
 - TSS and $BOD_5 < 30 \text{ mg/l}$
 - Identifying and addressing more robust aeration related equipment
- Making Good Progress
 - Initial data supporting achieving goals is very doable
 - Some data showing Total N < 5 mg/l being achieved
 - Monthly monitoring to be done through 2019



For More Information on NitROE[®] Tank Technology Please Contact:

John R. Smith, Ph.D., P.E.

72 Saddle Club Rd. P.O. Box 1154 Edgartown, MA 02539 412-719-5976 cell 508-627-3072 office john.r.smith@solutions-by-ces.com